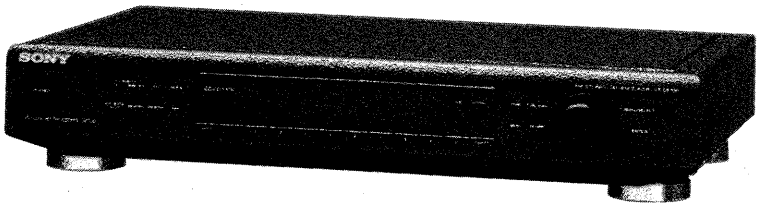
ST-SE700

SERVICE MANUAL

AEP Model
UK Model



SPECIFICATIONS

FM tuner section

Frequency range	87.5 - 108.0 MHz
Aerial terminals	75 ohms, unbalanced
Intermediate frequency	10.7 MHz
Sensitivity	at 26 dB quieting (mono) 10.3 dBf, 0.9 µV/75Ω at 46 dB quieting (stereo) 38.5 dBf, 23 µV/75Ω
Usable sensitivity (IHF)	10.3 dBf, 0.9 µV/75Ω
S/N	at 40 kHz deviation 80 dB (mono), 76 dB (stereo)
Harmonic distortion	WIDE 0.04 % (mono), 0.05 % (stereo) NARROW 0.06 % (mono), 0.08 % (stereo)
Frequency response	30 Hz - 15 kHz (+0.3/–0.7 dB)
Separation	50 dB at 1 kHz
Selectivity	at 400 kHz WIDE 80 dB NARROW 90 dB at 300 kHz WIDE 45 dB NARROW 70 dB
Output	at 40 kHz deviation 600 mV

AM tuner section

Frequency range	MW: 522 - 1,611 kHz (9 kHz step) LW: 144 - 288 kHz (1 kHz step)
Intermediate frequency	450 kHz
Usable Sensitivity	(with AM loop aerial) MW: 300 µV/m LW: 1 mV/m
Signal-to-noise ratio	MW: 54 dB (50 mV/m, 999 kHz) LW: 50 dB (50 mV/m, 216 kHz)
Harmonic distortion	0.3% (50 mV/m, 400 Hz)
Selectivity	32 dB

General

Power requirements	220-230 V, AC 50/60 Hz
Power consumption	12 W
Input impedance	75 ohms
Input connector	IEC-male
Dimensions	430 x 82 x 295 mm (w/h/d)
Weight	2.9 kg
Supplied accessories	Audio cord (1) AM loop aerial (1) FM wire aerial (1) EON control cord (1)

Design and specifications are subject to change without notice.

FM STEREO FM-AM TUNER

SONY®

TABLE OF CONTENTS

1. GENERAL 2

2. TEST MODE 3

3. ELECTRICAL ADJUSTMENT 5

4. DIAGRAMS

4-1. IC Pin Function
- IC701 System Control (μPD780205GF-017-3BA) 8

4-2. Printed Wiring Board — Tuner Section — 10

4-3. Schematic Diagram — Tuner Section — 13

4-4. Schematic Diagram — Display Section — 16

4-5. Printed Wiring Board — Display Section — 16

4-6. IC Block Diagrams — Tuner Section — 19

5. EXPLODED VIEW 20

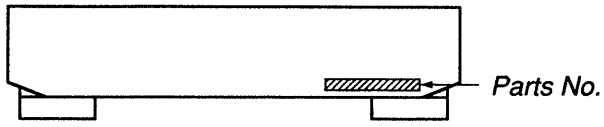
6. ELECTRICAL PARTS LIST 21

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

MODEL IDENTIFICATION

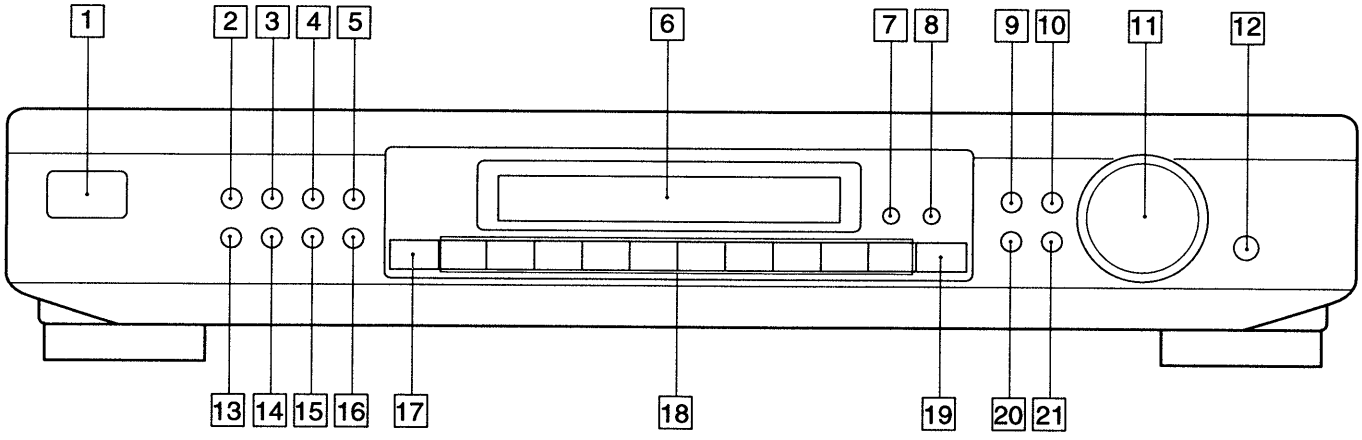
- BACK PANEL-



PARTS No.	MODEL
4-981-268-0□	AEP,German model
4-981-268-1□	UK model

SECTION 1
GENERAL

Location of Controls



1 POWER switch
2 TA button
3 NEWS/INFO button
4 PTY button
5 DISPLAY button
6 Display window
7 ASM button
8 ANTENNA button
9 CHAR button
10 TUNE MODE button
11 TUNING/SELECT knob
12 ENTER button
13 AUTO-BETICAL SELECT button
14 MEMORY button
15 FM MODE button
16 BAND button
17 SHIFT button
18 Preset button
19 DIRECT button
20 MENU button
21 RETURN button

SECTION 2
TEST MODE

1. Circuit Check Mode

Set to the reception frequency that the circuit can STEREO RDS stations. (Set the input level to above 70 dB.)
This enables circuit check to be performed in any of the reception modes-FM, AM (MW, LW). Set to a desired band before setting the test mode.

1. Turn OFF the power.
2. While pressing [4] and [AUTO-BETICAL SELECT] together, turn ON [POWER].

• The items in the following table will be checked automatically in order every 2 seconds.

Display	Items	DISPLAY		NG
		FM RDS	AM (MW, LW)	
Tuned	$\overline{\text{AST}}$ signal =LOW	OK or NG		IC251 NG, RV251 adjustments
IF Frq	IF COUNT OK	OK or NG	OK or NG	FE101, IC251 NG, or IF count buffer amp (Q251, Q401) NG
Sig Level	SI LEVELh70dB	OK or NG	OK or NG	IC221 NG, RV221 adjustments
Stereo	$\overline{\text{ST}}$ signal=LOW	OK or NG		IC301 NG, RV301 adjustments
RDS Signal	RDS DATA OK	OK or NG		IC801 NG

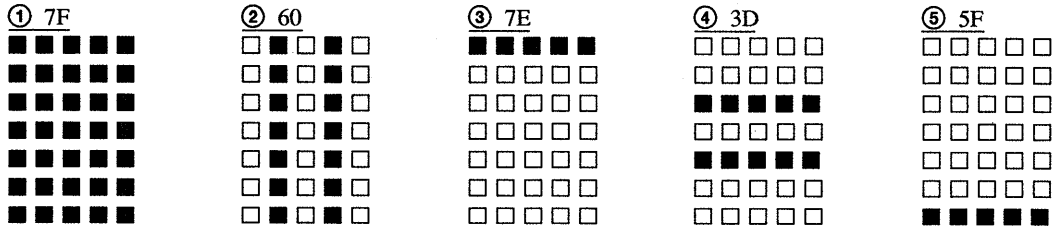
NOTE : The preset data will be erased when this test mode is used. Therefore, take down the data before setting this mode and preset the data again after completing operations in this mode.

2. Display Tube Check and KEY Check mode

1. Turn OFF the power.
2. While pressing [1] and [AUTO-BETICAL SELECT] together, turn ON [POWER] .
3. While continuously pressing [1] and [AUTO-BETICAL SELECT] together, check the following.

Microcomputer version indication (1 sec) → All light up "7F" → Dot area only "60" → Dot area only "7E" → Dot area only "3D" → Dot area only "5F" → (back to start)

Indication test pattern



* The indication test patterns from ② to ⑤ are indicated on only even grids.

The display changes every 1 sec.

4. Release [1] and [AUTO-BETICAL SELECT] . The KEY CHECK mode will be set.
5. All key numbers will be displayed.
   Key Number : 27
6. Each time the key is pressed, the key number will be counted down.
   Each key will be counted only once, at the first time.
7. When all keys have been pressed, the process will end.

NOTE : As contents of the Factory Preset will be written into memory after completing this check mode, delete contents of memory according to 4. Forced RESET.

3. Entering the Factory Preset (In case perform just to write memory of the Factory Preset.)

1. Turn OFF the power.
2. While pressing [3] and [AUTO-BETICAL SELECT] together, turn ON [POWER] .

4. Forced RESET (Used to delete the contents of Factory Preset when it is written into the preset memory.)

Clears all the RAMs and sets the initial state

1. Turn OFF the power.
2. While pressing [5] and [AUTO-BETICAL SELECT] together, turn ON [POWER] .
3. When "All clear" is indicated on the display tube, it means that "Forced Reset" has been completed.

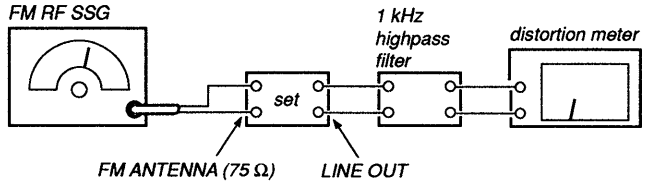
SECTION 3
ELECTRICAL ADJUSTMENTS

Precautions in Repairing

If the front end unit fails, it is difficult to repair the inner circuits, so replace the entire front end unit.

Set "IF : WIDE" after the all adjustments.

FM SECTION **0dB = 1μV**



• Standard Setting of FM Stereo RF Signal Generator.

STEREO STANDARD SIGNAL	MONAURAL STANDARD SIGNAL
Carrier frequency: 98MHz Modulation : Audio 1kHz Main channel (L+R): 33.75kHz deviation Sub channel (L–R) : 33.75kHz deviation Pilot : 7.5kHz deviation	Carrier frequency: 98MHz Modulation : Audio 1kHz 75kHz deviation

How to switch IF BAND : WIDE/NARROW and ANT ATT : ON/OFF

Method 1 :

1. Set the reception mode to FM.
2. Push the MENU button and turn the TUNING/SELECT to indicate "Reception" on the fluorescent display tube, then press the ENTER button.
3. Rotate the TUNING/SELECT knob in the clokwise direction. (Proceeds onto the step 5 when rotated in the counterclokwise direction.)
4. Turn the TUNING/SELECT knob to indicate "ANT ATT: OFF" on the fluorescent display tube, then press the ENTER button.
5. Turn the TUNING/SELECT knob to indicate "IF: NARROW" or "IF: WIDE" on the fluorescent display tube, then press the ENTER button.
   When the IF BAND: NARROW is set, "NARROW" is indicated on the fluorescent display tube.
6. Set WIDE after the operation.

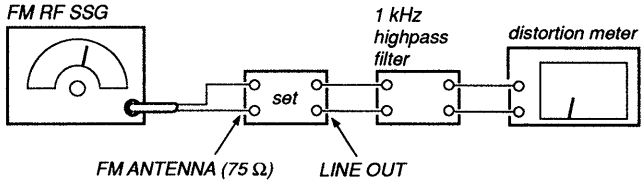
* When set to standby for inputs using the TUNING/SELECT knob, "SELECT" is indicated on the fluorecent display tube.

Method 2 :

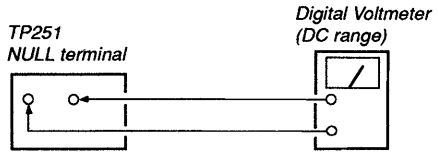
After the test modes "2. Display Tube Check and KEY Check mode" or "3. Entering the Factory Preset", "IF : NARROW" and "IF : WIDE" are switched every time pressing RETURN button the IF BAND : NARROW is set "NARROW" is indicated on the fluorescent display tube.
Likewise, the mode can be switched between "ANT ATT : ON" and "ANT ATT : OFF". When set to ANT ATT : ON, the fluorescent display tube indicates ANT ATT.

FM Discriminator ADJUSTMENT (NULL and MONO Distortion Adjustment)

Setting :
IF BAND : WIDE
ANT ATT : OFF



Modulation: Monaural Standard signal
Output level: 6mV (76dB) (at 75 Ω open)



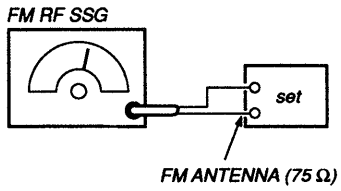
Procedure :

1. Tune the set to 98 MHz.
2. Adjust T252 for 0V reading on the digital voltmeter.
   ..... NULL
3. Adjust T253 for a minimum reading on the distortion meter.
   ..... MONO Distortion (THD)
4. Repeat the adjustments of 2 and 3 several times.

Note : When replacing the ceramic filter, perform this alignment.

Stereo Level Adjustment

Setting :
IF BAND : WIDE
ANT ATT : OFF

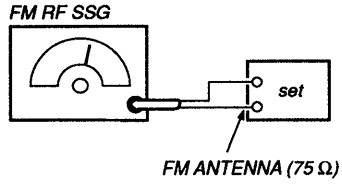


Modulation: Stereo Standard signal
Output level: 18μV (25dB) (at 75 Ω open)

Procedure :
1. Tune the set to 98 MHz.
2. Adjust RV251 to the point (moment) when the "STEREO" indicator will change from going off to going on.

Narrow Gain Adjustment

Setting :
IF BAND : NARROW
ANT ATT : OFF

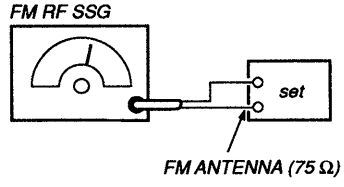


Modulation: Stereo Standard signal
Output level: 18μV (25dB) (at 75 Ω open)

Procedure :
1. Tune the set to 98 MHz.
2. Set "IF BAND : NARROW" according to the procedure of "How to switch IF BAND WIDE/NARROW" on page 6.
3. Adjust RV231 to the point (moment) when the "STEREO" indicator will change from going off to going on.

FM Meter Level Adjustment

Setting :
IF BAND : WIDE
ANT ATT : OFF

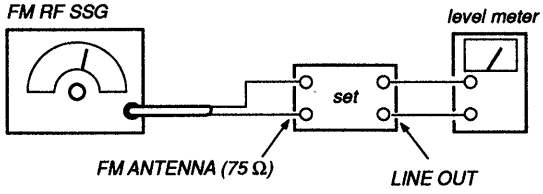


Modulation: Stereo Standard signal
Output level: 3mV (76dB) (at 75 Ω open)

Procedure :
1. Tune the set to 98 MHz.
2. Press DISPLAY button to display the digital signal, then adjust RV221 to be displayed as "SIG 70dB".

Stereo Separation Adjustment

Setting :
IF BAND : WIDE



Modulation: Stereo Standard signal
Output level: 6mV (76dB) (at 75 Ω open)

Procedure :
1. Refer to "How to switch IF BAND WIDE/NARROW" on page 6.

FM stereo Signal generator Output channel	Level meter connection	Level meter reading (dB)
L-CH	L-CH	Ⓐ
R-CH	L-CH	Ⓑ Adjust RV301 for minimum reading on Level meter
R-CH	R-CH	Ⓒ
L-CH	R-CH	Ⓓ Adjust RV301 for minimum reading on Level meter

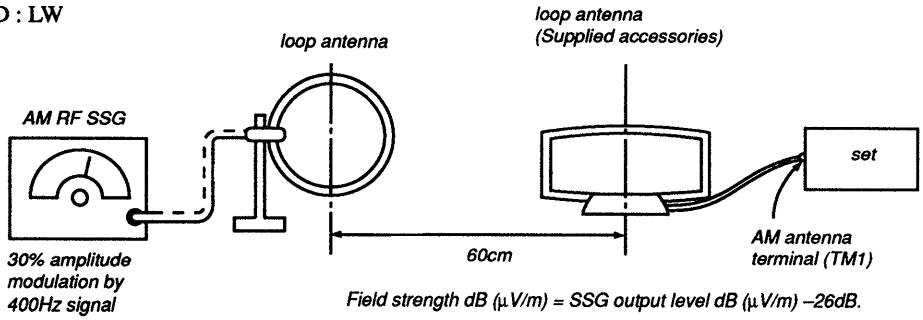
L-CH Stereo separation : Ⓐ - Ⓑ
R-CH Stereo separation : Ⓒ - Ⓓ

The separations of both channels should be equal.

AM SECTION

AM Meter Level Adjustment

Setting :
BAND : LW



Field strength dB (μV/m) = SSG output level dB (μV/m) –26dB.

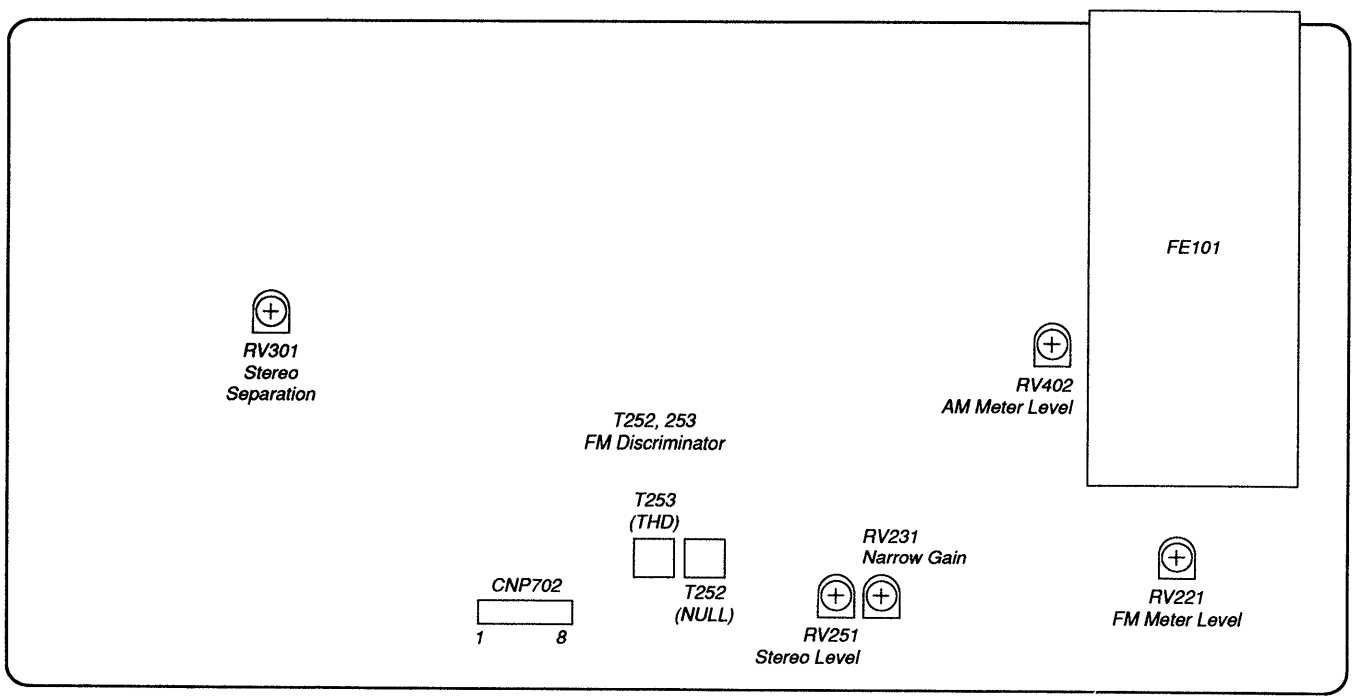
Carrier frequency: 216kHz
Modulation: AUDIO 400Hz, 30% modulation

Procedure :

1. Set AM RF signal generator so that the AM antenna input level becomes 74dBμ/m.
2. Adjust RV402 so that 1 to 10 indication bars light up on the signal meter.

Adjustment Location

[TUNER BOARD] — Component Side —



SECTION 4
DIAGRAMS

4-1. IC PIN FUNCTION

• **IC701 System Control (μPD780205GF-017-3BA)**

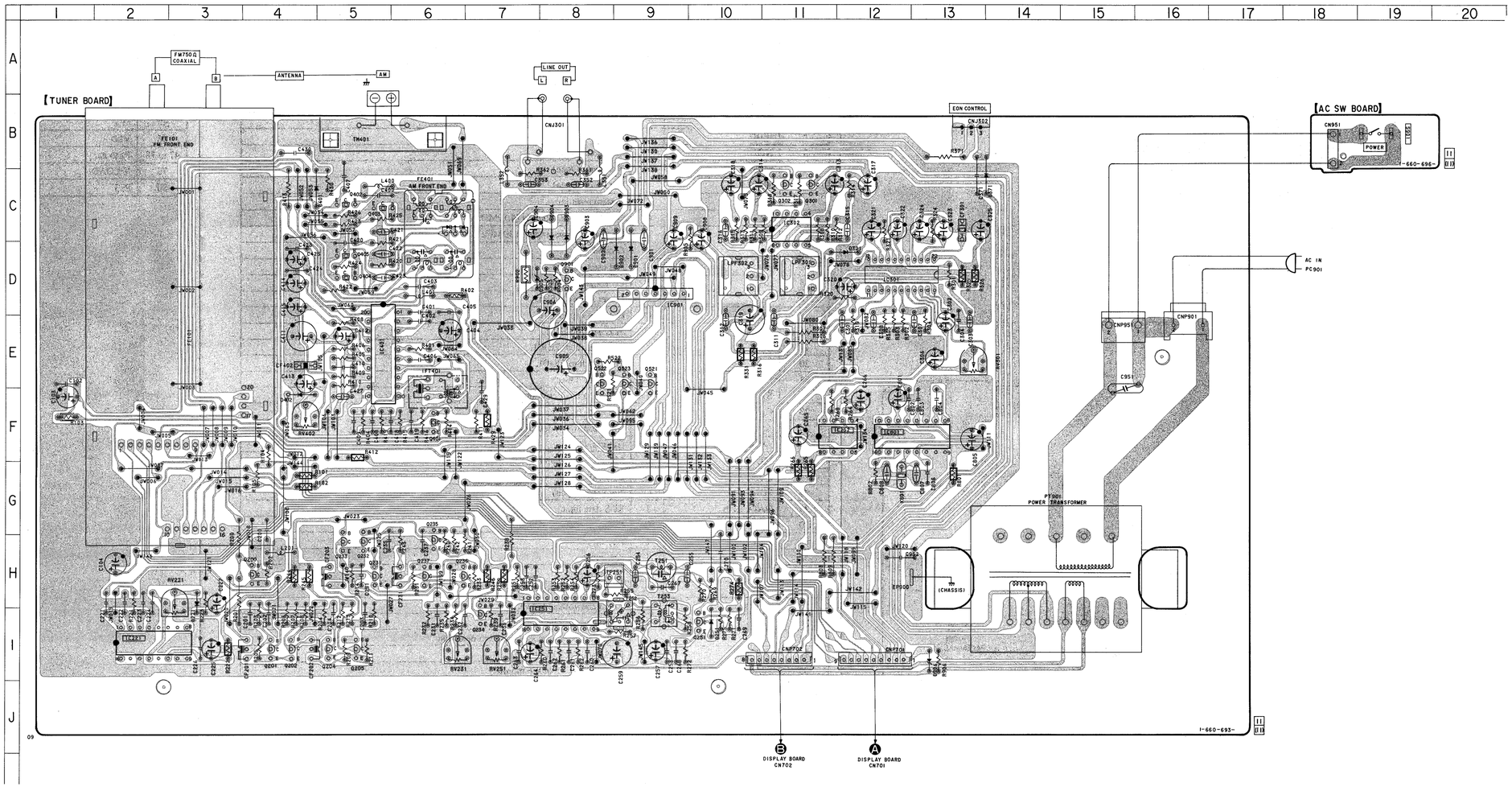
Pin No.	Pin Name	I/O	Function
1	VDD	—	Power supply (+5V).
2	$\overline{ANT}$	—	Not used. (Open)
3	$\overline{ATT}$	—	Not used. (Open)
4	$\overline{BAND1}$	—	Not used. (Open)
5	$\overline{BAND2}$	—	Not used. (Open)
6	IF-B	—	Not used. (Open)
7	NC	—	Not used. (Open)
8	MONO	—	Not used. (Open)
9	$\overline{TUN}$	—	Not used. (Open)
10	$\overline{RESET}$	I	System reset input.
11	X2	O	Oscillation signal output (4.19MHz).
12	X1	I	Oscillation signal input (4.19MHz).
13	GND	—	Ground.
14	NC	—	Not used. (Open)
15	$\overline{LOCK}$	I	Lock signal input.
16	VDD	—	Power supply (+5V).
17	$\overline{CLK}$	O	PLL clock to FE101.
18	DATA	O	PLL data to FE101.
19	D-IN	I	PLL data from FE101.
20	CE	O	PLL Latch to FE101.
21	$\overline{BLN}$	—	Not used. (Open)
22	$\overline{ST}$	I	Stereo display detection.
23	CAL	—	Not used. (Open)
24	AST	I	Auto stop signal detection.
25	AVSS	—	Ground. (Analog)
26	MUTE	O	Muting signal output.
27	EON	O	External control.
28	$\overline{PGM}$	—	Not used. (Open)
29	DATA RDS	I	RDS data input.
30	R2	O	Rotary encoder phase detection.
31	KEY 2	I	Key input.
32	KEY 1	I	Key input.
33	SI	I	Signal input.
34	AVDD	—	Analog power supply (+5V).
35	AVREF	I	Reference voltage (+5V).
36	$\overline{RIN}$	I	Remote control input.
37	R1	I	Rotary encoder number of rotation detection.
38	$\overline{RDS\ CLK}$	I	RDS data clock input.
39	$\overline{POWER}$	I	Power supply ON/OFF monitor.
40	GND	—	Ground.

Pin No.	Pin Name	I/O	Function
41	IS 5	I	Model detection.
42	IS 4	I	
43	IS 3	I	
44	IS 2	I	
45	$\overline{\text{IS 1}}$	I	
46	V_{DD}	—	Power supply (+5V).
47 to 78	P_1 to P_{32}	O	Drives indication tube.
79	V LOAD	—	Power supply (–30V).
80	P33	O	Drives indication tube.

4-2. PRINTED WIRING BOARD — TUNER SECTION —

- **Semiconductor Location**

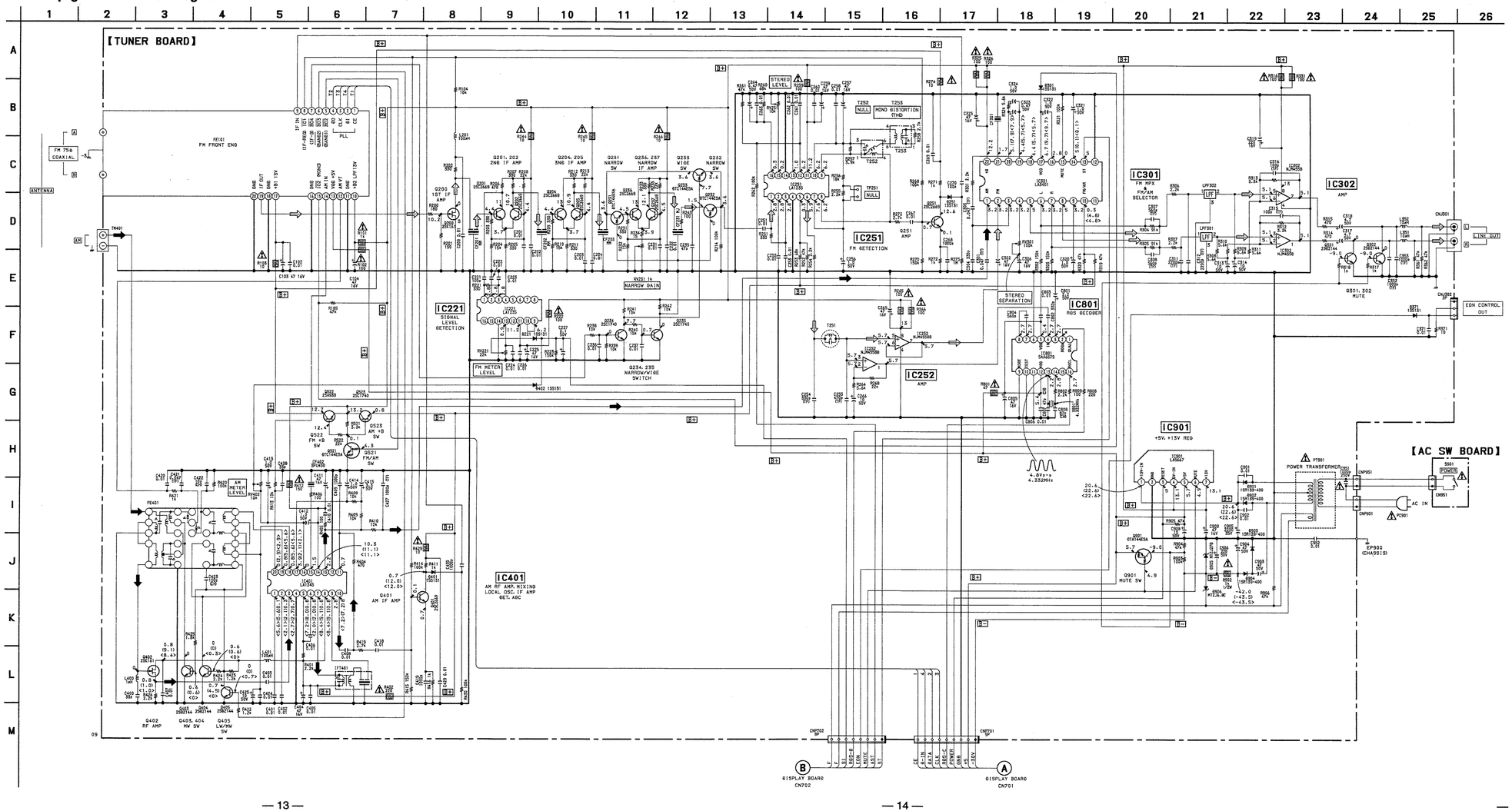
Ref. No.	Location
D221	I-3
D251	I-10
D301	D-12
D371	C-14
D401	C-5
D402	F-4
D901	D-9
D902	D-9
D903	C-8
D904	C-8
D905	D-7
D906	I-13
IC221	I-2
IC251	H-8
IC252	F-12
IC301	D-12
IC302	C-11
IC401	E-5
IC801	F-12
IC901	D-9
Q200	H-4
Q201	I-4
Q202	I-4
Q204	I-5
Q205	I-5
Q231	H-5
Q232	H-5
Q233	H-5
Q234	I-7
Q235	G-6
Q236	H-6
Q237	H-6
Q251	I-10
Q301	C-11
Q302	C-11
Q401	F-6
Q402	C-5
Q403	C-5
Q404	D-5
Q405	D-5
Q521	E-9
Q522	E-8
Q523	E-9
Q901	D-8



Note:
- ⟷ : parts extracted from the component side.
- △ : Internal component.
- ▨ : Pattern from the side which enable seeing.

4-3. SCHEMATIC DIAGRAM — TUNER SECTION —

• See page 19 for IC Block Diagrams.



NOTE

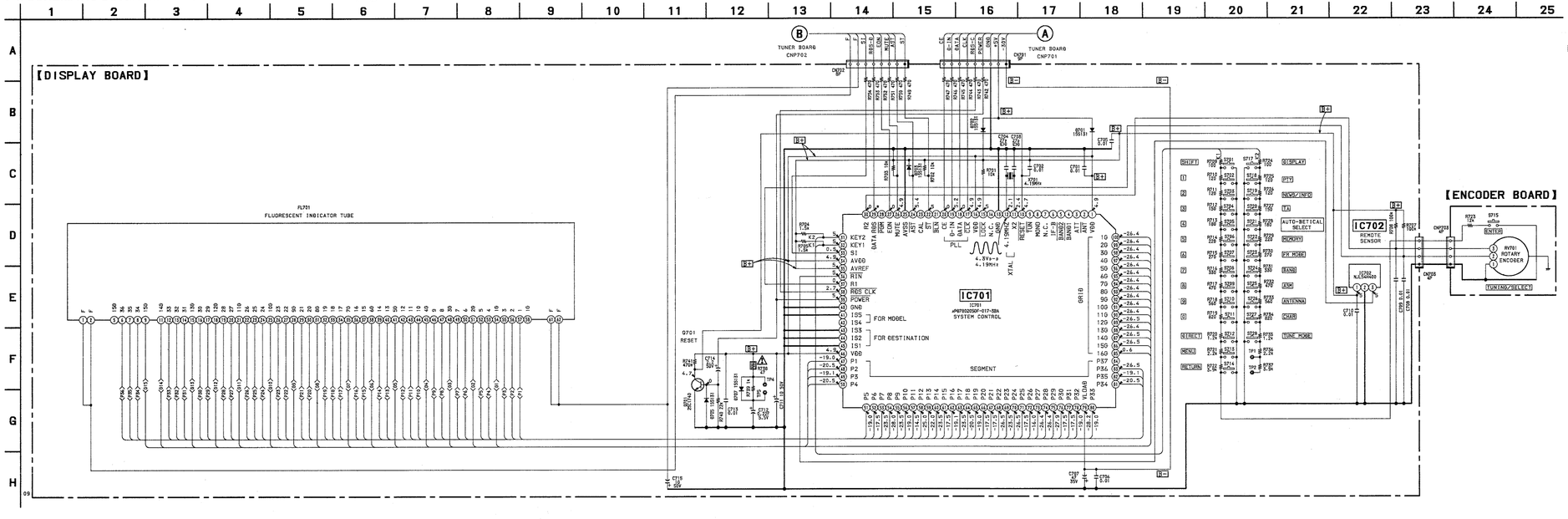
- All capacitors are in μF unless otherwise noted. pF: μF
  50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- △ : internal component.
- ▨ : nonflammable resistor.
- ▭ : panel designation.

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

- B+ : B+ Line.
- B− : B− Line.
- ▭ : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark: FM
  ( ): AM
  < >: LW
  * : can not be measured.
- Voltages are taken with a VOM (Input impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Signal path.
  ⇨ : FM
  ➡ : AM

4-4. SCHEMATIC DIAGRAM — DISPLAY SECTION —

• See page 8 for IC Pin Function. (IC701)



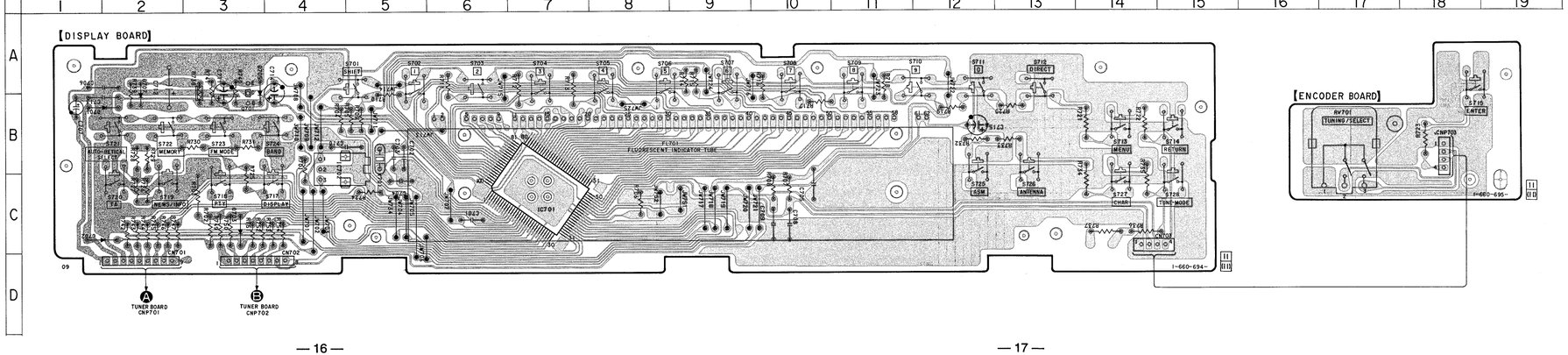
NOTE

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- ▭ : nonflammable resistor.
- ▭ : panel designation.

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

- B+ : B+ Line.
- B− : B− Line.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark: FM
  * : can not be measured.
- Voltages are taken with a VOM (Input impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.

4-5. PRINTED WIRING BOARD — DISPLAY SECTION —



- **Semiconductor Location**

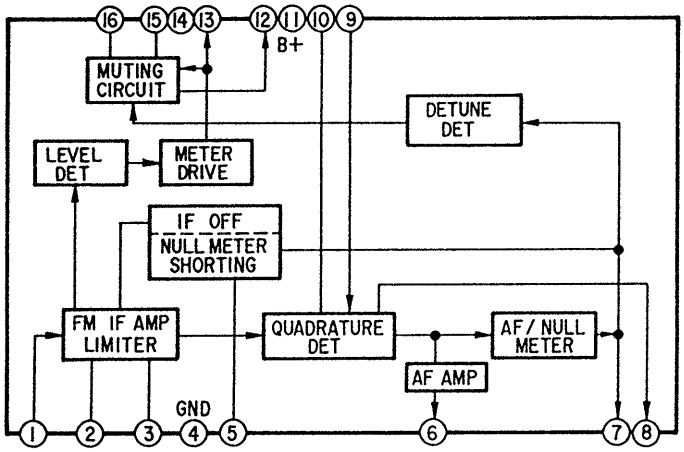
Ref. No.	Location
D701	B-1
D702	C-1
D703	C-3
D705	A-3
D707	A-2
IC701	C-7
IC702	B-4
Q701	B-3

Note:

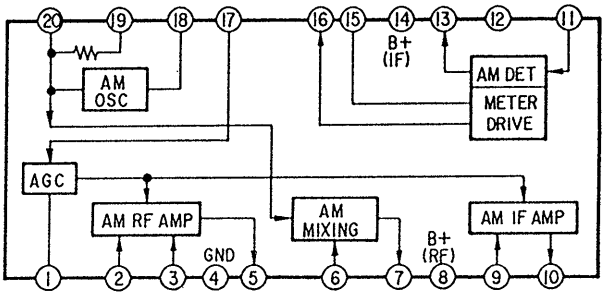
- ○—— : parts extracted from the component side.
- ▭ : Pattern from the side which enable seeing.

4-6. IC BLOCK DIAGRAMS — TUNER SECTION —

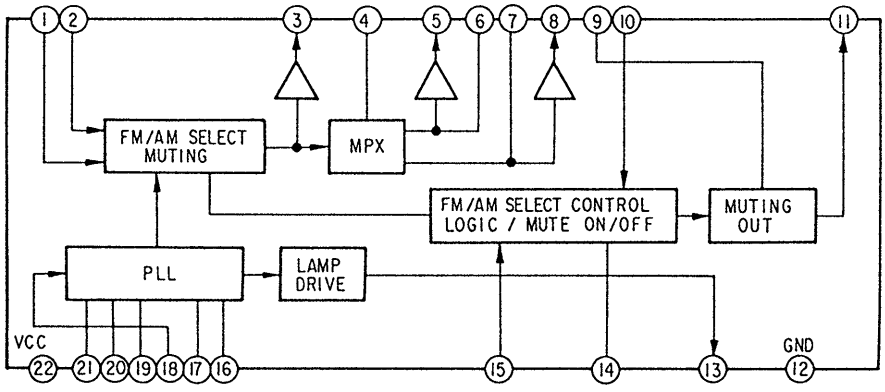
IC221, 251 LA1235



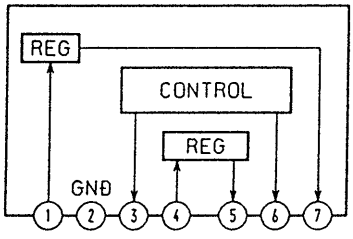
IC401 LA1245



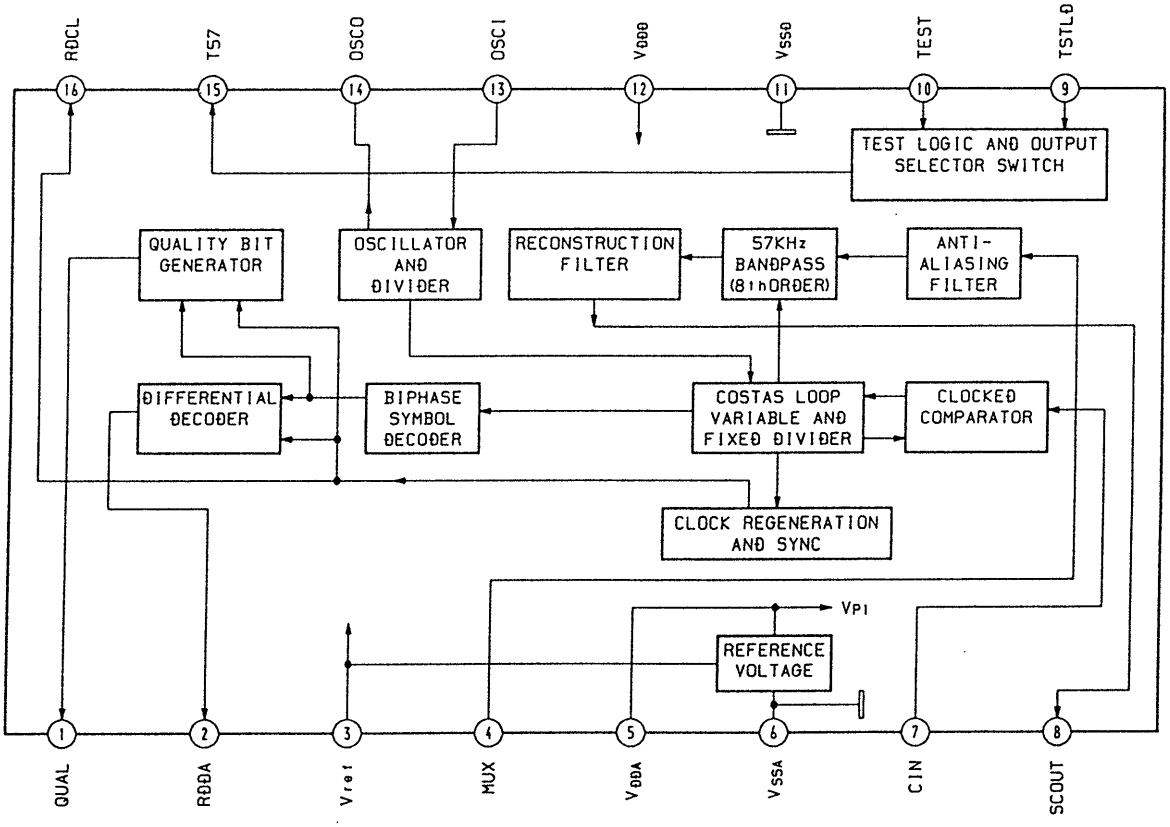
IC301 LA3401



IC901 LA5667



IC801 SAA6579

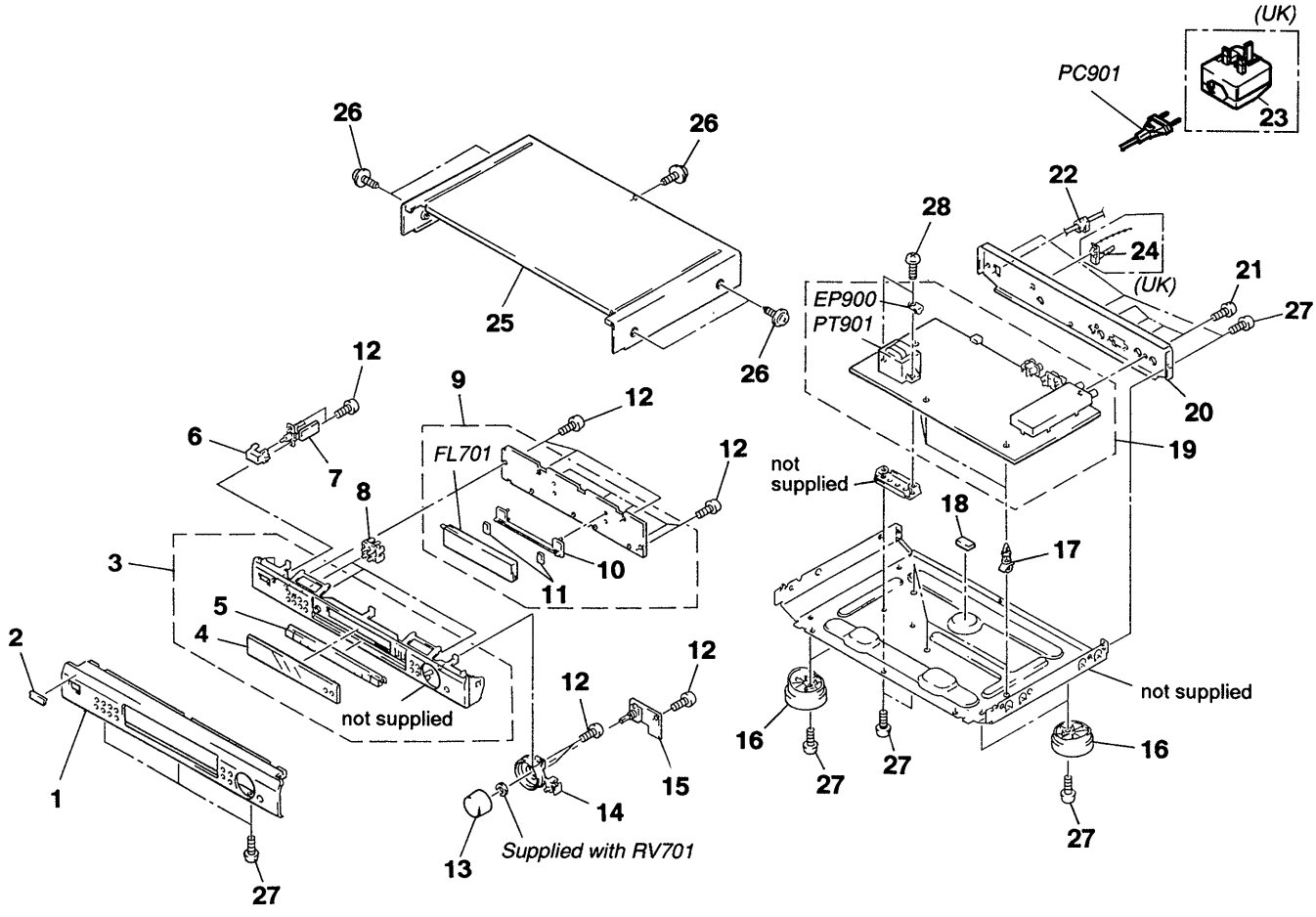


SECTION 5
EXPLODED VIEWS

NOTE:

- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Abbreviation
  G : German model

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.



Ref. No.	Part No.	Description	Remark
1	4-981-261-01	PANEL, FRONT	
2	4-979-587-01	EMBLEM (NO. 5), SONY	
3	X-4947-319-1	BASE ASSY, PANEL	
4	4-981-266-02	WINDOW, INDICATION	
5	4-981-263-01	BUTTON (10)	
6	4-977-589-21	BUTTON (POWER)	
* 7	1-660-696-11	AC SW BOARD	
8	4-981-264-01	BUTTON (4)	
* 9	A-4389-857-A	DISPLAY BOARD, COMPLETE	
* 10	4-945-292-01	HOLDER, INDICATION TUBE	
* 11	4-921-941-01	CUSHION (FL)	
12	4-951-620-01	SCREW (2.6X8), +BVTP	
13	4-981-267-01	KNOB (T-ZN) (VOLUME)	
14	4-981-265-01	ESCUTCHEON	
* 15	1-660-695-11	ENCORDER BOARD	
16	X-4947-025-1	FOOT ASSY	
* 17	3-346-265-31	HOLDER, PC BOARD	

Ref. No.	Part No.	Description	Remark
18	9-911-840-XX	CUSHION, LS	
* 19	A-4389-856-A	TUNER BOARD, COMPLETE	
* 20	4-981-268-01	PANEL, BACK (AEP, G)	
* 20	4-981-268-11	PANEL, BACK (UK)	
21	3-704-515-31	SCREW (BV/RING)	
22	4-966-267-11	BUSHING (FBS001), CORD	
⚠23	1-770-019-11	ADAPTOR, CONVERSION PLUG (UK)	
24	4-956-370-12	BAND, PLUG FIXED (UK)	
* 25	4-978-901-51	CASE (407026)	
26	3-363-099-01	SCREW (CASE 3 TP2)	
27	7-685-646-79	SCREW +BVTP 3X8 TYPE2 TT(B)	
28	7-682-548-04	SCREW +BVTT 3X8 (S)	
EP900	4-957-933-01	PLATE, GROUND	
FL701	1-517-177-21	INDICATOR TUBE, FLUORESCENT	
⚠PC901	1-575-651-21	CORD, POWER	
⚠PT901	1-423-525-11	TRANSFORMER, POWER	

SECTION 6
ELECTRICAL PARTS LIST

AC SW **DISPLAY**

NOTE:

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board name.

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- RESISTORS
  All resistors are in ohms
  METAL: Metal-film resistor
  METAL OXIDE: Metal Oxide-film resistor
  F : nonflammable
- SEMICONDUCTORS
  In each case, u: μ , for example:
  uA...: μA..., uPA...: μPA..., uPB...: μPB..., uPC...: μPC..., uPD...: μPD...
- CAPACITORS
  uF : μF
- COILS
  uH : μH

Ref. No.	Part No.	Description				Remark
*	1-660-696-11	AC SW BOARD				
		**********				
		< SWITCH >				
⚠S901	1-572-267-51	SWITCH, PUSH (AC POWER) (1 KEY) (POWER)				
**********						
*	A-4389-857-A	DISPLAY BOARD, COMPLETE				
		**********				
*	4-921-941-01	CUSHION (FL)				
*	4-945-292-01	HOLDER, INDICATION TUBE				
		< CAPACITOR >				
C701	1-162-306-11	CERAMIC	0.01uF	30%	16V	
C702	1-162-306-11	CERAMIC	0.01uF	30%	16V	
C703	1-162-209-31	CERAMIC	27PF	5%	50V	
C704	1-162-209-31	CERAMIC	27PF	5%	50V	
C705	1-162-306-11	CERAMIC	0.01uF	30%	16V	
C706	1-162-306-11	CERAMIC	0.01uF	30%	16V	
C707	1-126-947-11	ELECT	47uF	20%	35V	
C708	1-162-306-11	CERAMIC	0.01uF	30%	16V	
C709	1-162-306-11	CERAMIC	0.01uF	30%	16V	
C710	1-162-306-11	CERAMIC	0.01uF	30%	16V	
C711	1-126-964-11	ELECT	10uF	20%	50V	
C712	1-104-905-11	CAPACITOR	0.22F		5.5V	
C713	1-162-306-11	CERAMIC	0.01uF	30%	16V	
C714	1-124-925-11	ELECT	2.2uF	20%	100V	
C715	1-126-964-11	ELECT	10uF	20%	50V	
		< DIODE >				
D701	8-719-815-85	DIODE	1S1585			
D702	8-719-815-85	DIODE	1S1585			
D703	8-719-815-85	DIODE	1S1585			
D705	8-719-815-85	DIODE	1S1585			
D707	8-719-815-85	DIODE	1S1585			
		< FLUORESCENT INDICATOR >				
FL701	1-517-177-21	INDICATOR TUBE, FLUORESCENT				
		< IC >				
IC701	8-759-377-58	IC	uPD780205GF-017-3BA			
IC702	8-759-373-49	IC	NJL54H400			
		< TRANSISTOR >				
Q701	8-729-119-78	TRANSISTOR	2SC2785-HFE			
		< RESISTOR >				
R701	1-249-429-11	CARBON	10K	5%	1/4W	
R702	1-249-429-11	CARBON	10K	5%	1/4W	
R703	1-249-429-11	CARBON	10K	5%	1/4W	
R704	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R705	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R707	1-249-441-11	CARBON	100K	5%	1/4W	
R708	1-249-441-11	CARBON	100K	5%	1/4W	
R709	1-247-807-31	CARBON	100	5%	1/4W	
R710	1-249-406-11	CARBON	120	5%	1/4W	F
R711	1-249-406-11	CARBON	120	5%	1/4W	F
R712	1-249-407-11	CARBON	150	5%	1/4W	F
R713	1-249-408-11	CARBON	180	5%	1/4W	F
R714	1-247-815-91	CARBON	220	5%	1/4W	
R715	1-249-410-11	CARBON	270	5%	1/4W	F
R716	1-249-411-11	CARBON	330	5%	1/4W	
R717	1-249-413-11	CARBON	470	5%	1/4W	F
R718	1-249-414-11	CARBON	560	5%	1/4W	F
R719	1-249-416-11	CARBON	820	5%	1/4W	F
R720	1-249-418-11	CARBON	1.2K	5%	1/4W	F
R721	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R722	1-249-424-11	CARBON	3.9K	5%	1/4W	F
R724	1-247-807-31	CARBON	100	5%	1/4W	
R725	1-249-406-11	CARBON	120	5%	1/4W	F
R726	1-249-406-11	CARBON	120	5%	1/4W	F
R727	1-249-407-11	CARBON	150	5%	1/4W	F
R728	1-249-408-11	CARBON	180	5%	1/4W	F
R729	1-247-815-91	CARBON	220	5%	1/4W	
R730	1-249-410-11	CARBON	270	5%	1/4W	F
R731	1-249-411-11	CARBON	330	5%	1/4W	
R732	1-249-413-11	CARBON	470	5%	1/4W	F
R733	1-249-414-11	CARBON	560	5%	1/4W	F
R734	1-249-416-11	CARBON	820	5%	1/4W	F
R735	1-249-418-11	CARBON	1.2K	5%	1/4W	F
R736	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R737	1-249-424-11	CARBON	3.9K	5%	1/4W	F

DISPLAY ENCORDER TUNER

Ref. No.	Part No.	Description				Remark
⚠R738	1-249-401-11	CARBON	47	5%	1/4W	F
R739	1-249-417-11	CARBON	1K	5%	1/4W	F
R740	1-247-863-91	CARBON	22K	5%	1/4W	
R741	1-247-895-91	CARBON	470K	5%	1/4W	
R742	1-249-413-11	CARBON	470	5%	1/4W	F
R743	1-249-413-11	CARBON	470	5%	1/4W	F
R744	1-249-413-11	CARBON	470	5%	1/4W	F
R745	1-249-413-11	CARBON	470	5%	1/4W	F
R746	1-249-413-11	CARBON	470	5%	1/4W	F
R747	1-249-413-11	CARBON	470	5%	1/4W	F
R749	1-249-413-11	CARBON	470	5%	1/4W	F
R750	1-249-413-11	CARBON	470	5%	1/4W	F
R751	1-249-413-11	CARBON	470	5%	1/4W	F
R752	1-249-413-11	CARBON	470	5%	1/4W	F
R753	1-249-413-11	CARBON	470	5%	1/4W	F
R754	1-249-413-11	CARBON	470	5%	1/4W	F
		< SWITCH >				
S701	1-554-303-21	SWITCH, TACTILE (SHIFT)				
S702	1-554-303-21	SWITCH, TACTILE (1)				
S703	1-554-303-21	SWITCH, TACTILE (2)				
S704	1-554-303-21	SWITCH, TACTILE (3)				
S705	1-554-303-21	SWITCH, TACTILE (4)				
S706	1-554-303-21	SWITCH, TACTILE (5)				
S707	1-554-303-21	SWITCH, TACTILE (6)				
S708	1-554-303-21	SWITCH, TACTILE (7)				
S709	1-554-303-21	SWITCH, TACTILE (8)				
S710	1-554-303-21	SWITCH, TACTILE (9)				
S711	1-554-303-21	SWITCH, TACTILE (0)				
S712	1-554-303-21	SWITCH, TACTILE (DIRECT)				
S713	1-554-303-21	SWITCH, TACTILE (MENU)				
S714	1-554-303-21	SWITCH, TACTILE (RETURN)				
S717	1-554-303-21	SWITCH, TACTILE (DISPLAY)				
S718	1-554-303-21	SWITCH, TACTILE (PTY)				
S719	1-554-303-21	SWITCH, TACTILE (NEWS/INFO)				
S720	1-554-303-21	SWITCH, TACTILE (TA)				
S721	1-554-303-21	SWITCH, TACTILE (AUTO-BETICAL SELECT)				
S722	1-554-303-21	SWITCH, TACTILE (MEMORY)				
S723	1-554-303-21	SWITCH, TACTILE (FM MODE)				
S724	1-554-303-21	SWITCH, TACTILE (BAND)				
S725	1-554-303-21	SWITCH, TACTILE (ASM)				
S726	1-554-303-21	SWITCH, TACTILE (ANTENNA)				
S727	1-554-303-21	SWITCH, TACTILE (CHAR)				
S728	1-554-303-21	SWITCH, TACTILE (TUNE MODE)				
		< VIBRATOR >				
X701	1-760-422-11	VIBRATOR, CRYSTAL (4.19MHz)				

****

Ref. No.	Part No.	Description				Remark
*	1-660-695-11	ENCORDER BOARD				
		**********				
	1-690-880-41	LEAD (WITH CONNECTOR)				
		< RESISTOR >				
R723	1-249-430-11	CARBON	12K	5%	1/4W	
		< VARIABLE RESISTOR >				
RV701	1-467-703-11	ENCODER, ROTARY (TUNING/SELECT)				
		< SWITCH >				
S715	1-554-303-21	SWITCH, TACTILE (ENTER)				

****

*	A-4389-856-A	TUNER BOARD, COMPLETE				
		**********				
	7-682-548-04	SCREW +BVTT 3X8 (S)				
		< CAPACITOR >				
C102	1-162-306-11	CERAMIC	0.01uF	30%	16V	
C103	1-126-967-11	ELECT	47uF	20%	16V	
C104	1-126-967-11	ELECT	47uF	20%	16V	
C200	1-162-306-11	CERAMIC	0.01uF	30%	16V	
C201	1-162-306-11	CERAMIC	0.01uF	30%	16V	
C202	1-162-306-11	CERAMIC	0.01uF	30%	16V	
C203	1-162-306-11	CERAMIC	0.01uF	30%	16V	
C204	1-162-306-11	CERAMIC	0.01uF	30%	16V	
C221	1-162-282-31	CERAMIC	100PF	10%	50V	
C222	1-162-306-11	CERAMIC	0.01uF	30%	16V	
C223	1-162-306-11	CERAMIC	0.01uF	30%	16V	
C224	1-162-306-11	CERAMIC	0.01uF	30%	16V	
C225	1-126-967-11	ELECT	47uF	20%	16V	
C226	1-162-306-11	CERAMIC	0.01uF	30%	16V	
C227	1-126-956-91	ELECT	0.1uF	20%	50V	
C231	1-162-306-11	CERAMIC	0.01uF	30%	16V	
C232	1-162-306-11	CERAMIC	0.01uF	30%	16V	
C235	1-162-215-31	CERAMIC	47PF	5%	50V	
C236	1-162-306-11	CERAMIC	0.01uF	30%	16V	
C237	1-162-306-11	CERAMIC	0.01uF	30%	16V	
C251	1-162-306-11	CERAMIC	0.01uF	30%	16V	
C252	1-162-306-11	CERAMIC	0.01uF	30%	16V	
C253	1-162-306-11	CERAMIC	0.01uF	30%	16V	
C254	1-110-341-11	MYLAR	330PF	5%	50V	
C255	1-130-467-00	MYLAR	470PF	5%	50V	
C256	1-124-903-11	ELECT	1uF	20%	50V	
C257	1-126-967-11	ELECT	47uF	20%	16V	
C258	1-162-306-11	CERAMIC	0.01uF	30%	16V	
C259	1-126-967-11	ELECT	47uF	20%	16V	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description			Remark
C260	1-162-306-11	CERAMIC	0.01uF	30%	16V
C261	1-162-306-11	CERAMIC	0.01uF	30%	16V
C262	1-162-306-11	CERAMIC	0.01uF	30%	16V
C263	1-162-306-11	CERAMIC	0.01uF	30%	16V
C264	1-124-902-00	ELECT	0.47uF	20%	50V
C265	1-126-967-11	ELECT	47uF	20%	16V
C266	1-126-964-11	ELECT	10uF	20%	50V
C267	1-162-306-11	CERAMIC	0.01uF	30%	16V
C268	1-162-294-31	CERAMIC	0.001uF	10%	50V
C269	1-162-306-11	CERAMIC	0.01uF	30%	16V
C270	1-162-282-31	CERAMIC	100PF	10%	50V
C301	1-136-161-00	FILM	0.047uF	5%	50V
C302	1-126-967-11	ELECT	47uF	20%	16V
C303	1-136-161-00	FILM	0.047uF	5%	50V
C304	1-162-288-31	CERAMIC	330PF	10%	50V
C306	1-126-967-11	ELECT	47uF	20%	16V
C307	1-130-468-00	MYLAR	560PF	5%	50V
C308	1-130-468-00	MYLAR	560PF	5%	50V
C311	1-130-475-00	MYLAR	0.0022uF	5%	50V
C312	1-130-475-00	MYLAR	0.0022uF	5%	50V
C313	1-126-964-11	ELECT	10uF	20%	50V
C314	1-126-964-11	ELECT	10uF	20%	50V
C315	1-110-335-11	MYLAR	100PF	5%	50V
C316	1-110-335-11	MYLAR	100PF	5%	50V
C317	1-126-963-11	ELECT	4.7uF	20%	50V
C318	1-126-963-11	ELECT	4.7uF	20%	50V
C319	1-126-934-11	ELECT	220uF	20%	16V
C320	1-124-903-11	ELECT	1uF	20%	50V
C321	1-124-903-11	ELECT	1uF	20%	50V
C322	1-124-903-11	ELECT	1uF	20%	50V
C323	1-124-902-00	ELECT	0.47uF	20%	50V
C324	1-124-903-11	ELECT	1uF	20%	50V
C325	1-126-967-11	ELECT	47uF	20%	16V
C352	1-130-471-00	MYLAR	0.001uF	5%	50V
C353	1-130-471-00	MYLAR	0.001uF	5%	50V
C371	1-162-306-11	CERAMIC	0.01uF	30%	16V
C400	1-162-211-31	CERAMIC	33PF	5%	50V
C401	1-162-306-11	CERAMIC	0.01uF	30%	16V
C402	1-162-306-11	CERAMIC	0.01uF	30%	16V
C403	1-162-306-11	CERAMIC	0.01uF	30%	16V
C404	1-126-967-11	ELECT	47uF	20%	16V
C405	1-162-306-11	CERAMIC	0.01uF	30%	16V
C406	1-162-306-11	CERAMIC	0.01uF	30%	16V
C407	1-162-306-11	CERAMIC	0.01uF	30%	16V
C408	1-162-306-11	CERAMIC	0.01uF	30%	16V
C409	1-162-294-31	CERAMIC	0.001uF	10%	50V
C410	1-162-306-11	CERAMIC	0.01uF	30%	16V
C411	1-126-967-11	ELECT	47uF	20%	16V
C412	1-124-903-11	ELECT	1uF	20%	50V
C413	1-124-903-11	ELECT	1uF	20%	50V
C414	1-124-903-11	ELECT	1uF	20%	50V
C415	1-126-962-11	ELECT	3.3uF	20%	50V
C418	1-162-306-11	CERAMIC	0.01uF	30%	16V
C419	1-162-294-31	CERAMIC	0.001uF	10%	50V
C420	1-162-306-11	CERAMIC	0.01uF	30%	16V
C421	1-136-161-00	FILM	0.047uF	5%	50V
C422	1-102-508-91	CERAMIC	10PF	0.5PF	50V
C423	1-102-973-00	CERAMIC	100PF	5%	50V
C424	1-162-306-11	CERAMIC	0.01uF	30%	16V
C425	1-126-964-11	ELECT	10uF	20%	50V
C427	1-130-471-00	MYLAR	0.001uF	5%	50V
C428	1-162-211-31	CERAMIC	33PF	5%	50V
C429	1-162-306-11	CERAMIC	0.01uF	30%	16V
C430	1-162-294-31	CERAMIC	0.001uF	10%	50V
C801	1-124-925-11	ELECT	2.2uF	20%	100V
C802	1-162-288-31	CERAMIC	330PF	10%	50V
C803	1-162-306-11	CERAMIC	0.01uF	30%	16V
C804	1-162-291-31	CERAMIC	560PF	10%	50V
C805	1-126-967-11	ELECT	47uF	20%	16V
C806	1-162-306-11	CERAMIC	0.01uF	30%	16V
C807	1-102-852-91	CERAMIC	47PF	5%	50V
C808	1-102-527-11	CERAMIC	82PF	5%	50V
C901	1-101-004-00	CERAMIC	0.01uF		50V
C902	1-101-004-00	CERAMIC	0.01uF		50V
C903	1-126-967-11	ELECT	47uF	20%	50V
C904	1-126-967-11	ELECT	47uF	20%	50V
C905	1-126-953-11	ELECT	2200uF	20%	35V
C906	1-126-969-11	ELECT	220uF	20%	50V
C908	1-126-964-11	ELECT	10uF	20%	50V
C909	1-126-967-11	ELECT	47uF	20%	16V
⚠C951	1-113-915-11	CERAMIC	0.001uF	20%	250V
C952	1-162-306-11	CERAMIC	0.01uF	30%	16V

< FILTER >

CF201	1-567-389-11	FILTER, CERAMIC
CF202	1-567-389-11	FILTER, CERAMIC
CF203	1-567-389-11	FILTER, CERAMIC
CF231	1-579-554-31	FILTER, CERAMIC
CF301	1-567-250-11	OSCILLATOR, CERAMIC
CF402	1-527-981-00	FILTER, CERAMIC

< JACK >

CNJ301	1-568-250-11	JACK, PIN 2P (LINE OUT)

< CONNECTOR >

CNJ302	1-566-212-11	PIN, CONNECTOR 3P (EON CONTROL)
* CNP701	1-568-936-11	PIN, CONNECTOR 9P
* CNP702	1-568-935-11	PIN, CONNECTOR 8P
CNP901	1-580-230-11	PIN, CONNECTOR (PC BOARD) 2P

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

TUNER

Ref. No.	Part No.	Description	Remark
CNP951	1-564-321-00	PIN, CONNECTOR 2P	
		< DIODE >	
D221	8-719-815-85	DIODE 1S1585	
D251	8-719-815-85	DIODE 1S1585	
D301	8-719-815-85	DIODE 1S1585	
D371	8-719-815-85	DIODE 1S1585	
D401	8-719-815-85	DIODE 1S1585	
D402	8-719-815-85	DIODE 1S1585	
D901	8-719-970-02	DIODE 1SR139-400	
D902	8-719-970-02	DIODE 1SR139-400	
D903	8-719-970-02	DIODE 1SR139-400	
D904	8-719-970-02	DIODE 1SR139-400	
D905	8-719-110-69	DIODE RD27ES-B4	
D906	8-719-109-97	DIODE RD6.8ES-B2	
		< GROUND >	
EP900	4-957-933-01	PLATE, GROUND	
		< FRONT END >	
FE101	1-233-524-11	ENCAPSULATED COMPONENT (ANTENNA FM)	
FE401	1-233-525-11	ENCAPSULATED COMPONENT	
		< IC >	
IC221	8-759-812-35	IC LA1235	
IC251	8-759-812-35	IC LA1235	
IC252	8-759-634-51	IC M5218AP	
IC301	8-759-801-80	IC LA3401	
IC302	8-759-634-51	IC M5218AP	
IC401	8-759-812-45	IC LA1245	
IC801	8-759-169-99	IC SAA6579	
IC901	8-759-820-09	IC LA5667	
		< IFT >	
IFT401	1-404-713-11	TRANSFORMER, IF	
		< COIL >	
L201	1-410-521-11	INDUCTOR 100uH	
L351	1-410-509-11	INDUCTOR 10uH	
L352	1-410-509-11	INDUCTOR 10uH	
L400	1-414-142-11	INDUCTOR 1uH	
L401	1-410-521-11	INDUCTOR 100uH	
		< LOW PASS FILTER >	
LPF301	1-235-164-00	FILTER, LOW PASS	
LPF302	1-235-164-00	FILTER, LOW PASS	
		< TRANSFORMER >	
⚠PT901	1-423-525-11	TRANSFORMER, POWER	

Ref. No.	Part No.	Description	Remark
		< TRANSISTOR >	
Q200	8-729-231-20	TRANSISTOR 2SK161-YGR	
Q201	8-729-230-99	TRANSISTOR 2SC2669-OY	
Q202	8-729-230-99	TRANSISTOR 2SC2669-OY	
Q204	8-729-230-99	TRANSISTOR 2SC2669-OY	
Q205	8-729-230-99	TRANSISTOR 2SC2669-OY	
Q231	8-729-030-03	TRANSISTOR DTC144ESA-TP	
Q232	8-729-030-03	TRANSISTOR DTC144ESA-TP	
Q233	8-729-030-03	TRANSISTOR DTC144ESA-TP	
Q234	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q235	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q236	8-729-230-99	TRANSISTOR 2SC2669-OY	
Q237	8-729-230-99	TRANSISTOR 2SC2669-OY	
Q251	8-729-230-99	TRANSISTOR 2SC2669-OY	
Q301	8-729-922-37	TRANSISTOR 2SD2144S	
Q302	8-729-922-37	TRANSISTOR 2SD2144S	
Q401	8-729-230-99	TRANSISTOR 2SC2669-OY	
Q402	8-729-231-20	TRANSISTOR 2SK161-YGR	
Q403	8-729-922-37	TRANSISTOR 2SD2144S	
Q404	8-729-922-37	TRANSISTOR 2SD2144S	
Q405	8-729-922-37	TRANSISTOR 2SD2144S	
Q521	8-729-030-03	TRANSISTOR DTC144ESA-TP	
Q522	8-729-026-41	TRANSISTOR 2SA933AS-QRT	
Q523	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q901	8-729-029-56	TRANSISTOR DTA144ESA	
		< RESISTOR >	
⚠R101	1-249-417-11	CARBON 1K 5% 1/4W F	
⚠R102	1-249-405-11	CARBON 100 5% 1/4W F	
⚠R103	1-249-393-11	CARBON 10 5% 1/4W F	
R104	1-249-429-11	CARBON 10K 5% 1/4W	
R105	1-249-437-11	CARBON 47K 5% 1/4W	
R200	1-249-408-11	CARBON 180 5% 1/4W F	
R201	1-249-407-11	CARBON 150 5% 1/4W F	
R202	1-249-411-11	CARBON 330 5% 1/4W	
R203	1-249-411-11	CARBON 330 5% 1/4W	
R204	1-249-431-11	CARBON 15K 5% 1/4W	
R205	1-249-411-11	CARBON 330 5% 1/4W	
R206	1-249-413-11	CARBON 470 5% 1/4W F	
R207	1-249-411-11	CARBON 330 5% 1/4W	
R208	1-247-863-91	CARBON 22K 5% 1/4W	
R209	1-249-411-11	CARBON 330 5% 1/4W	
R210	1-249-431-11	CARBON 15K 5% 1/4W	
R211	1-249-411-11	CARBON 330 5% 1/4W	
R212	1-249-411-11	CARBON 330 5% 1/4W	
R213	1-247-863-91	CARBON 22K 5% 1/4W	
R214	1-249-441-11	CARBON 100K 5% 1/4W	
R221	1-249-411-11	CARBON 330 5% 1/4W	
⚠R222	1-249-405-11	CARBON 100 5% 1/4W F	
R223	1-247-883-00	CARBON 150K 5% 1/4W	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description				Remark
R231	1-249-411-11	CARBON	330	5%	1/4W	
R232	1-249-431-11	CARBON	15K	5%	1/4W	
R233	1-249-411-11	CARBON	330	5%	1/4W	
R234	1-249-395-11	CARBON	15	5%	1/4W	F
R235	1-247-863-91	CARBON	22K	5%	1/4W	
R238	1-249-429-11	CARBON	10K	5%	1/4W	
R239	1-249-429-11	CARBON	10K	5%	1/4W	
R240	1-249-431-11	CARBON	15K	5%	1/4W	
R241	1-249-429-11	CARBON	10K	5%	1/4W	
R242	1-249-429-11	CARBON	10K	5%	1/4W	
R243	1-247-807-31	CARBON	100	5%	1/4W	
⚠R244	1-249-393-11	CARBON	10	5%	1/4W	F
⚠R245	1-249-393-11	CARBON	10	5%	1/4W	F
⚠R246	1-249-393-11	CARBON	10	5%	1/4W	F
R251	1-249-411-11	CARBON	330	5%	1/4W	
R252	1-249-437-11	CARBON	47K	5%	1/4W	
R253	1-249-439-11	CARBON	68K	5%	1/4W	
R254	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R255	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R256	1-249-432-11	CARBON	18K	5%	1/4W	
R257	1-249-424-11	CARBON	3.9K	5%	1/4W	F
R258	1-249-422-11	CARBON	2.7K	5%	1/4W	F
⚠R259	1-249-405-11	CARBON	100	5%	1/4W	F
R260	1-249-439-11	CARBON	68K	5%	1/4W	
R261	1-249-437-11	CARBON	47K	5%	1/4W	
R262	1-249-441-11	CARBON	100K	5%	1/4W	
R264	1-249-426-11	CARBON	5.6K	5%	1/4W	
⚠R265	1-249-405-11	CARBON	100	5%	1/4W	F
⚠R266	1-249-405-11	CARBON	100	5%	1/4W	F
R268	1-247-863-91	CARBON	22K	5%	1/4W	
R269	1-249-441-11	CARBON	100K	5%	1/4W	
R270	1-247-883-00	CARBON	150K	5%	1/4W	
R271	1-249-417-11	CARBON	1K	5%	1/4W	F
R272	1-249-417-11	CARBON	1K	5%	1/4W	F
R273	1-249-422-11	CARBON	2.7K	5%	1/4W	F
⚠R274	1-249-393-11	CARBON	10	5%	1/4W	F
R275	1-247-903-00	CARBON	1M	5%	1/4W	
R301	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R302	1-247-883-00	CARBON	150K	5%	1/4W	
R303	1-247-883-00	CARBON	150K	5%	1/4W	
R304	1-247-878-00	CARBON	91K	5%	1/4W	
R305	1-247-878-00	CARBON	91K	5%	1/4W	
R306	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R307	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R308	1-249-426-11	CARBON	5.6K	5%	1/4W	
R309	1-249-426-11	CARBON	5.6K	5%	1/4W	
R310	1-249-426-11	CARBON	5.6K	5%	1/4W	
R311	1-249-426-11	CARBON	5.6K	5%	1/4W	
R312	1-247-843-11	CARBON	3.3K	5%	1/4W	
R313	1-247-843-11	CARBON	3.3K	5%	1/4W	

Ref. No.	Part No.	Description				Remark
R314	1-249-413-11	CARBON	470	5%	1/4W	F
R315	1-249-413-11	CARBON	470	5%	1/4W	F
⚠R316	1-249-405-11	CARBON	100	5%	1/4W	F
R317	1-249-417-11	CARBON	1K	5%	1/4W	F
R318	1-249-417-11	CARBON	1K	5%	1/4W	F
R319	1-249-437-11	CARBON	47K	5%	1/4W	
R320	1-249-437-11	CARBON	47K	5%	1/4W	
R321	1-249-441-11	CARBON	100K	5%	1/4W	
R324	1-249-426-11	CARBON	5.6K	5%	1/4W	
⚠R325	1-249-405-11	CARBON	100	5%	1/4W	F
⚠R326	1-249-405-11	CARBON	100	5%	1/4W	F
⚠R331	1-249-405-11	CARBON	100	5%	1/4W	F
R361	1-249-437-11	CARBON	47K	5%	1/4W	
R362	1-249-437-11	CARBON	47K	5%	1/4W	
R371	1-249-393-11	CARBON	10	5%	1/4W	F
R401	1-249-421-11	CARBON	2.2K	5%	1/4W	F
⚠R402	1-249-409-11	CARBON	220	5%	1/4W	F
R404	1-249-413-11	CARBON	470	5%	1/4W	F
R405	1-247-807-31	CARBON	100	5%	1/4W	
R406	1-247-807-31	CARBON	100	5%	1/4W	
R408	1-249-429-11	CARBON	10K	5%	1/4W	
R409	1-249-429-11	CARBON	10K	5%	1/4W	
R410	1-249-430-11	CARBON	12K	5%	1/4W	
R411	1-249-417-11	CARBON	1K	5%	1/4W	F
⚠R412	1-249-407-11	CARBON	150	5%	1/4W	F
R413	1-249-429-11	CARBON	10K	5%	1/4W	
R414	1-249-441-11	CARBON	100K	5%	1/4W	
R415	1-247-883-00	CARBON	150K	5%	1/4W	
R416	1-249-417-11	CARBON	1K	5%	1/4W	F
R419	1-249-422-11	CARBON	2.7K	5%	1/4W	F
R420	1-249-441-11	CARBON	100K	5%	1/4W	
R421	1-249-417-11	CARBON	1K	5%	1/4W	F
R422	1-249-418-11	CARBON	1.2K	5%	1/4W	F
R423	1-249-418-11	CARBON	1.2K	5%	1/4W	F
R424	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R425	1-249-420-11	CARBON	1.8K	5%	1/4W	F
R426	1-249-421-11	CARBON	2.2K	5%	1/4W	F
⚠R429	1-249-393-11	CARBON	10	5%	1/4W	F
R430	1-249-441-11	CARBON	100K	5%	1/4W	
R521	1-247-843-11	CARBON	3.3K	5%	1/4W	
R522	1-247-863-91	CARBON	22K	5%	1/4W	
⚠R801	1-249-401-11	CARBON	47	5%	1/4W	F
R802	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R808	1-247-815-91	CARBON	220	5%	1/4W	
R809	1-247-807-31	CARBON	100	5%	1/4W	
R902	1-247-752-11	CARBON	1K	5%	1/2W	F
R903	1-249-441-11	CARBON	100K	5%	1/4W	
R904	1-249-437-11	CARBON	47K	5%	1/4W	
R905	1-249-437-11	CARBON	47K	5%	1/4W	
R906	1-249-437-11	CARBON	47K	5%	1/4W	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

TUNER

Ref. No.	Part No.	Description	Remark
		< VARIABLE RESISTOR >	
RV221	1-241-765-11	RES, ADJ, CARBON 22K	
RV231	1-241-761-11	RES, ADJ, CARBON 1K	
RV251	1-241-630-11	RES, ADJ, CARBON 10K	
RV301	1-241-767-21	RES, ADJ, CARBON 100K	
RV402	1-241-630-11	RES, ADJ, CARBON 10K	
		< TRANSFORMER >	
T251	1-235-126-00	ENCAPSULATED COMPONENT	
T252	1-404-845-11	COIL, DISCRI (PRIMARY)	
T253	1-404-846-11	COIL, DISCRI (SECONDARY)	
		< TERMINAL >	
TM401	1-537-897-11	TERMINAL BOARD, PUSH(ANTENNA) 2P	(ANTENNA AM)
		< VIBRATOR >	
X801	1-579-900-21	VIBRATOR, CRYSTAL (4.33MHz)	
**********			
		MISCELLANEOUS	
		**********	
⚠23	1-770-019-11	ADAPTOR, CONVERSION PLUG (UK)	
EP900	4-957-933-01	PLATE, GROUND	
FL701	1-517-177-21	INDICATOR TUBE, FLUORESCENT	
⚠PC901	1-575-651-21	CORD, POWER	
⚠PT901	1-423-525-11	TRANSFORMER, POWER	
**********			
		ACCESSORIES & PACKING MATERIALS	
		**********	
	1-501-594-11	ANTENNA (FM)	
	1-501-721-11	ANTENNA (LOOP)	
	1-558-271-11	CORD, CONNECTION (AUDIO 108CM)	
	1-765-383-11	CORD (WITH CONNECTOR) (EON)	
	3-856-667-11	MANUAL, INSTRUCTION (ENGLISH, FRENCH, SPANISH, PORTUGUESE) (AEP, UK)	
	3-856-667-21	MANUAL, INSTRUCTION (GERMAN, DUTCH, SWEDISH, ITALIAN) (AEP)	
	3-856-667-41	MANUAL, INSTRUCTION (ENGLISH, POLISH, RUSSIAN) (UK)	
	3-856-667-51	MANUAL, INSTRUCTION (GERMAN) (G)	
*	4-980-991-01	CUSHION	
*	4-984-555-01	INDIVIDUAL CARTON	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

English
96G097553-1
Printed in Germany
© 1996. 7
Published by Quality Engineering Dept.
(Shibaura)

9-960-717-11

Sony Corporation
Home A&V Products Company